



*Nonpoint Source*  
PROGRAM

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**POINT SOURCE POLLUTION COMES  
FROM AN IDENTIFIED POINT OR  
LOCATION, SUCH AS AN INDUSTRIAL  
PLANT.**





**Point Source Pollution is regulated, which means you must have a permit in order to discharge it.**



# ***WHAT IS NONPOINT SOURCE POLLUTION???***



# Pollution that does not come from a point source, such as a pipe!





**EPA testing Katrina  
floodwaters**

## **NONPOINT SOURCE POLLUTION...**

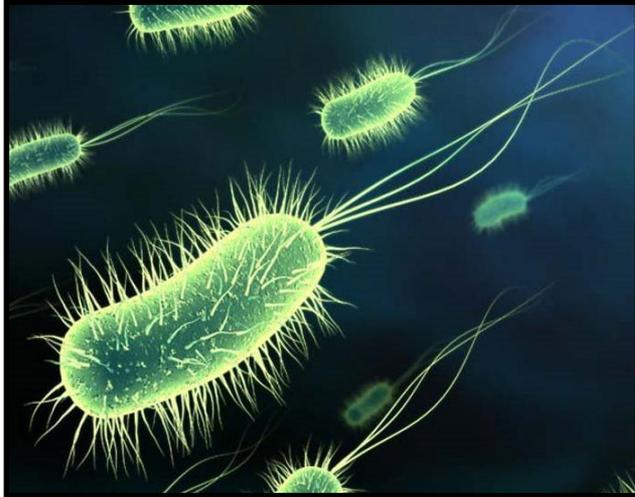


can be water that falls on the ground and moves across the land, picking up pollutants along the way. This water is called runoff.

It may eventually end up in a river, lake, or ocean. No permits are required.



# WHAT KIND OF POLLUTANTS ARE PICKED UP FROM THE GROUND?



Nutrients  
Pathogens  
Sediment  
Toxic substances  
and many  
others...



# WHERE DO THESE POLLUTANTS COME FROM?

Some of the pollutants are caused by human activities. Others occur naturally, such as waste from wildlife and types of erosion. There is virtually nothing we can do about this.



# Rain



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# Irrigation



# Farming



Fields and crops can contribute nutrients, sediment, pesticides, and herbicides.



# Livestock



Contribute pathogens and nutrients, and can cause soil erosion.



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# URBAN AREAS

Can contribute anything that washes off of yards and streets: chemicals, oil, gas, fertilizer, dog poop, soil, roadkill, food, trash ...

# CONSTRUCTION SITES



May contribute sediment, nutrients, metals, construction debris, and other pollutants.

# HARVESTING TIMBER

Logging strips the land of vegetation, causing erosion.



# FAILING SEPTIC TANKS

Nutrients and pathogens come from malfunctioning septic tanks.



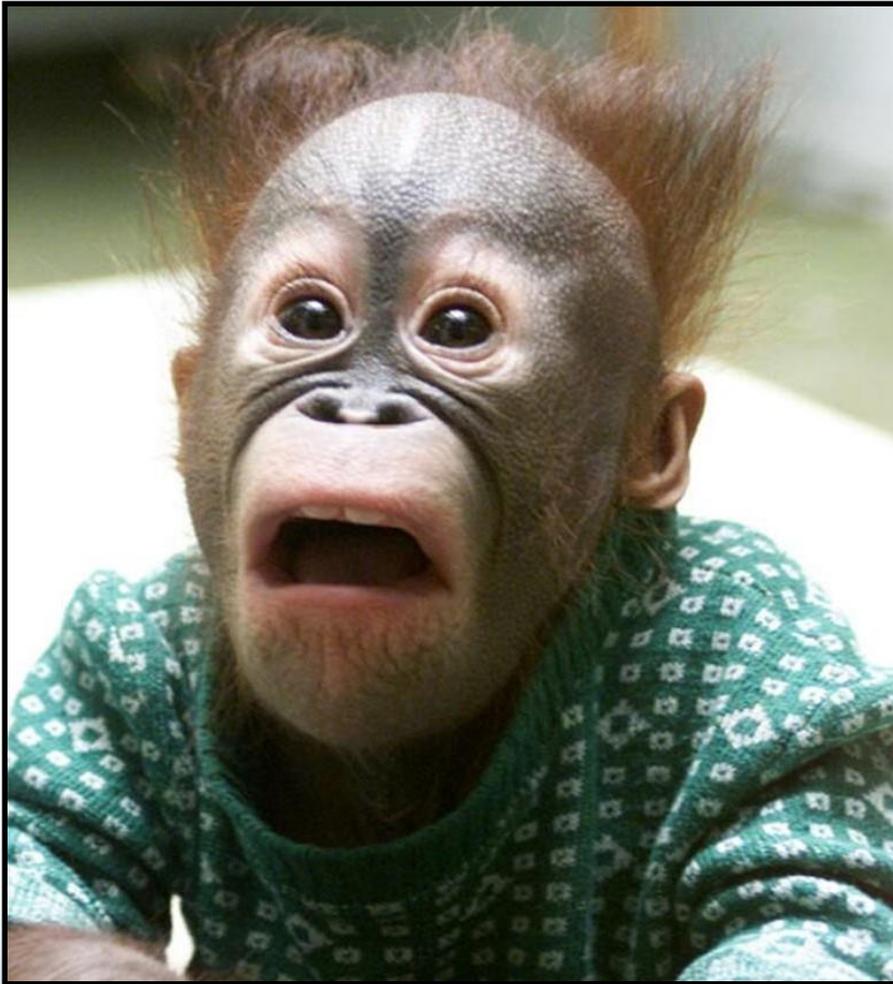
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**AND MANY OTHER WAYS WATER FALLS ON THE GROUND.....**



# ***WHY WORRY ABOUT IT?***



Excessive levels of pollutants in waterbodies can make them unhealthy and useless!



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# How do you know if it's too polluted?



Water samples are collected and tested for many parameters, such as:

- Dissolved oxygen
- Fecal coliform bacteria
- Phosphorus
- Nitrogen
- Temperature
- Turbidity
- pH...

# WHAT DO THE LAB TESTS TELL US?



If the test results do not fall within a certain range, we say that waterbody is *“not meeting its criteria”* and it is *“not supporting its Designated Uses.”*



# TYPES OF DESIGNATED USES



- **Primary Contact Recreation**
- **Secondary Contact Recreation**
- **Fish and Wildlife Propagation**
  - Drinking Water Supply
  - Oyster Propagation
  - Agriculture
- **Outstanding Natural Resource**



# PRIMARY CONTACT RECREATION

Direct contact with the water, such as swimming and water skiing.



# Secondary Contact Recreation



Occasional contact with water, such as: fishing, wading, boating, building sandcastles...

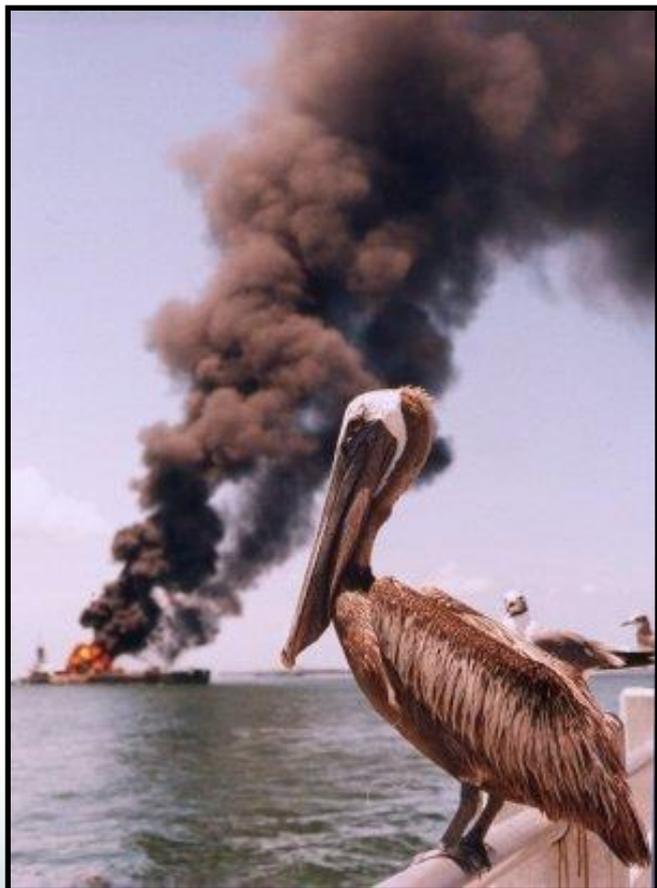
# FISH AND WILDLIFE PROPAGATION



Fish and other animals use the water as a place to live, eat, and reproduce.



# HOW DO WE STOP ALL THIS POLLUTION?



By using Best Management Practices!

BMPs can reduce the amount of nonpoint pollution that is being carried into the waterbodies.



# HOW CAN BMPs CONTROL NONPOINT SOURCE POLLUTION?

- Decrease the amount of runoff by retaining stormwater until it evaporates, soaks into the ground, or is absorbed by plants.
- Increase the quality of runoff by filtering out pollutants.



A Streamside Management Zone (aka Riparian Buffer Zone) is a strip of vegetation along the bank of a stream.

This zone slows down the runoff before it enters the stream - reducing erosion, and absorbing water and nutrients.

It can be used in different locations – urban areas, forestry, agriculture...



# URBAN BMPs



**Rain Garden**



Rain Barrels -  
save the rain  
for a sunny  
day!

# Clean up pet waste



# URBAN BMPs



If you have a septic tank, make sure it works properly!

Toilet paper from the absence of a septic tank.



# CONSTRUCTION BMPs



## SILT FENCE



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# FORESTRY BMPs



- Roads should not be built on highly erodible soils or steep slopes.
- When roads are no longer needed, they should be closed and revegetated.



# FENCING



Livestock can cause serious erosion of stream banks, and also deposit fecal matter in the water. If you fence animals out of the stream, you must provide them with an alternate source of water and shade.



# CONCRETE WATER TROUGH



Installing a water trough with a concrete pad will help prevent the surrounding soil from eroding.



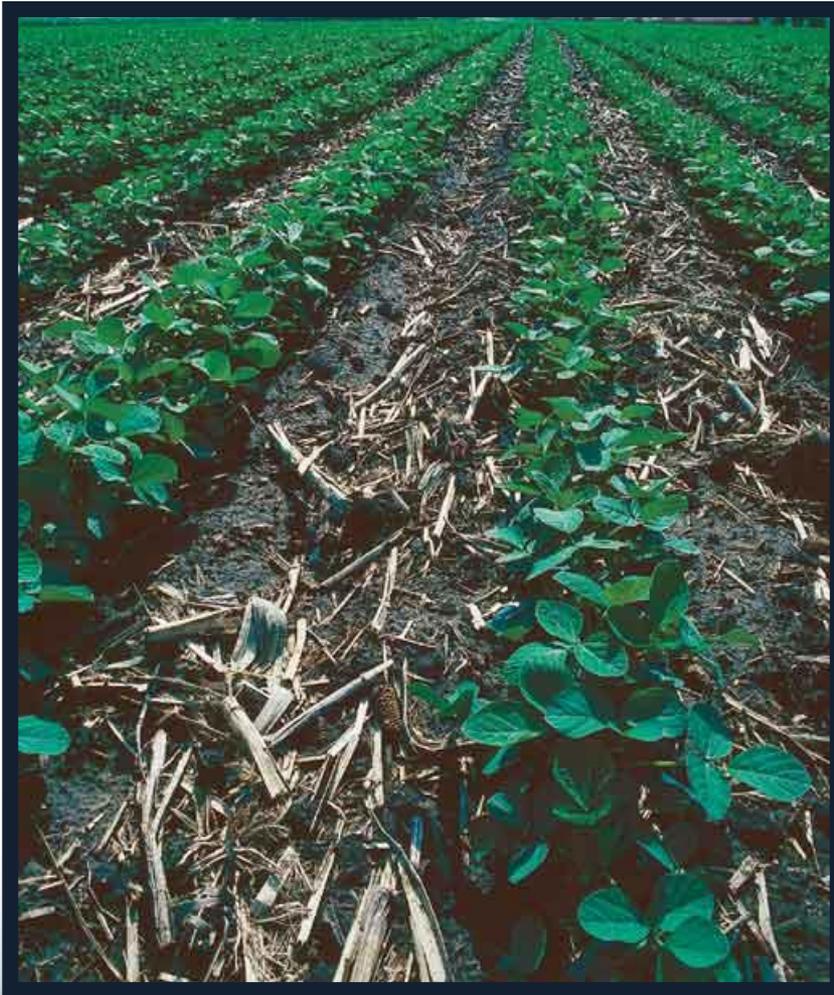
# COVER CROPS



Cover crops grow when fields would otherwise be bare. They reduce the amount of soil and nutrients that are washed away.



# CONSERVATION TILLAGE



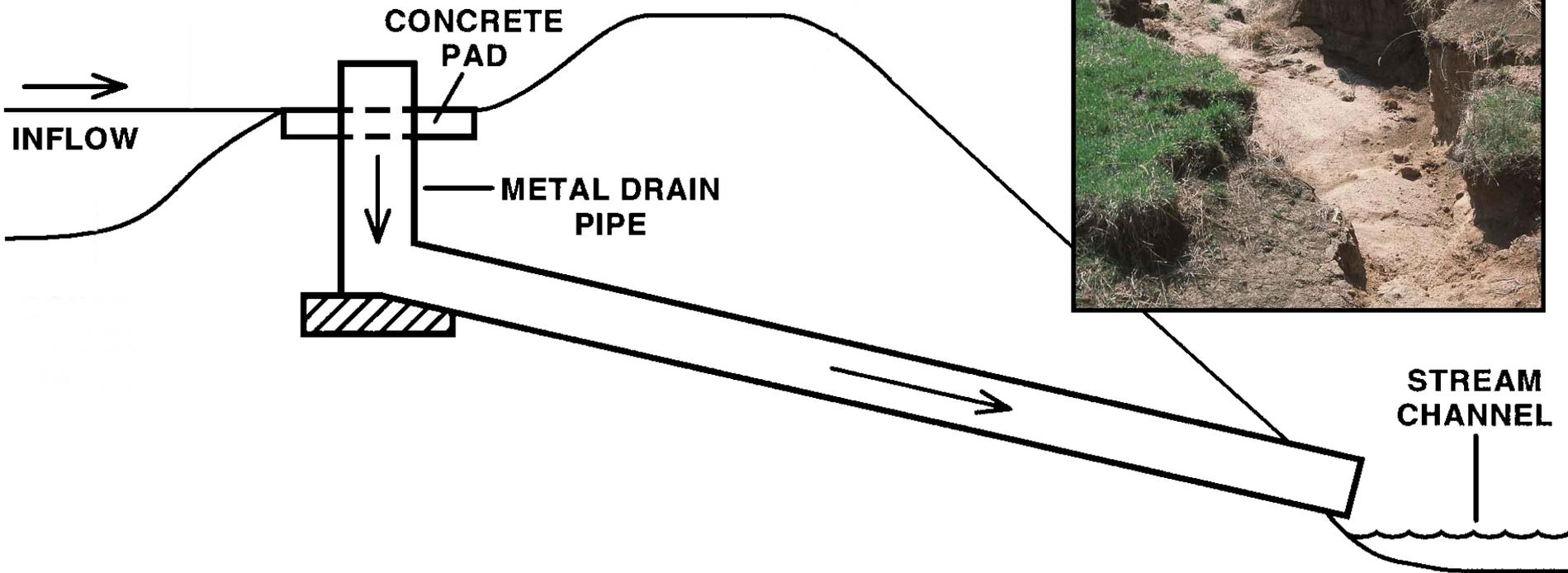
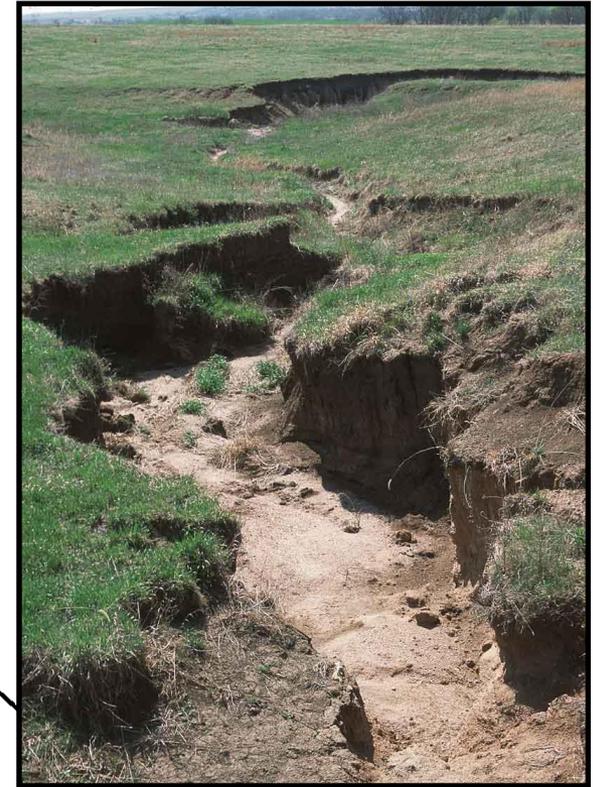
- Residue from the previous crop is left on the ground.
- New crops are planted with minimum tillage of the soil.



# PIPE DROP STRUCTURES



Safely deliver water down a stream bank without causing sheet and rill erosion and deep gullies.



# **OUTREACH IN WATERSHED RESTORATION AND PROTECTION EFFORTS**



- **By engaging local citizens and water protection organizations (Lake Pontchartrain Basin Foundation, Bayou Vermilion District, Soil and Water Conservation Districts, etc.) it is hoped that more support for water pollution control efforts can be generated.**
- **As the process is developed, LDAF and LDEQ plan to incorporate media and web-based outreach efforts to encourage local participation in NPS-related water quality improvement efforts.**



# MASTER FARMER PROGRAM



The Louisiana Master Farmer Program focuses on helping agricultural producers voluntarily address environmental concerns and enhance the production of Louisiana agriculture. It teaches them more about environmental stewardship, conservation-based production techniques and resource management.



# MEETING WITH STAKEHOLDERS



# LDAF EDUCATION OUTREACH



# DEQ NPS EDUCATION OUTREACH



DEQ NPS staff travel to events around the state to promote environmental awareness and education.





# EDUCATIONAL INFORMATION AVAILABLE THROUGH LDEQ

- Basin Brochures
  - Fact Sheets
- Storm Drain Markers
- Presenters for workshops
  - Watershed plans
  - [www.ldeq.org](http://www.ldeq.org)



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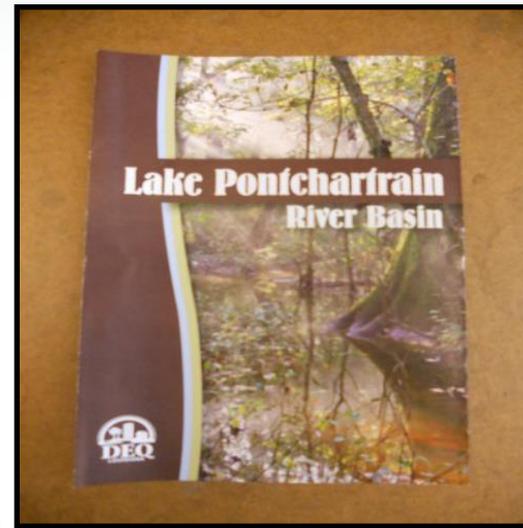
# MAKE CHANGES! BE THE SOLUTION!

Everything you blow, spray, pour or throw on the ground can get washed down the storm drain – polluting Louisiana's waters

- Recycle oil
- Use less fertilizer and pesticides
- Mulch or bag grass clippings
- Bag pet waste
- Don't litter

Find out more at: [www.DEQ.LOUISIANA.GOV](http://www.DEQ.LOUISIANA.GOV)

DEQ EPA



<h3>REDUCE NONPOINT SOURCE POLLUTION</h3> <p><i>in Louisiana Waters</i></p> <h4>Dissolved Oxygen</h4> <p>Limits on the amount of certain powerful pollutants that run after wastewater have been set in many Louisiana water bodies, and ways to improve the process will be set in the future. This program, more commonly known as the Total Maximum Daily Load (TMDL) program, allows us to understand exactly what pollutants can be discharged into Louisiana water bodies and will have those water bodies meet those designated uses.</p> <p>They have been set and change in the state in our most vulnerable watersheds by the Environmental Protection Agency (EPA) in response to their designated uses, such as fishing, swimming or drinking water. The Louisiana Department of Environmental Quality (DEQ) is charged with implementing the TMDL program in Louisiana to improve water quality in the impacted water bodies in Louisiana. As a result of this program, less water is discharged into Louisiana water bodies.</p>	<h3>REDUCE NONPOINT SOURCE POLLUTION</h3> <p><i>in Louisiana Waters</i></p> <h4>Home Sewage Treatment Plant Management</h4> <p>Nearly 25 percent of American homes have an individual or home sewage treatment system. More than 32,000 such systems are in Louisiana. The average household in their generation averages 100 gallons a day of water waste. Sewerage this adds up to more than 22,000,000 gallons a day of water waste. Most problems in the state prevent the water to be discharged to streams that can use all the oxygen and end up in streams or lakes. This water contains ammonia and phosphorus, which are nutrients that can cause algal blooms in lakes and streams. If the water is not discharged or treated by some other method, it will remain toxic.</p>
<h3>REDUCE NONPOINT SOURCE POLLUTION</h3> <p><i>in Louisiana Waters</i></p> <h4>Automobile, ATV and Boat Care</h4> <p>Cars, boats and ATVs require considerable upkeep, and keeping them clean and serviced not only helps show them off, it helps protect that investment. Many Louisiana residents wash and service their vehicles and boats at home. Although this saves money and shows pride, the practice can be an environmental disaster. Gas, oil, grease and chemicals from servicing your boat and vehicle at home are pollutants. Filter your wastewater, soap, road grime and dirt washed off from vehicles and boats are also detrimental to streams.</p>	<h3>REDUCE NONPOINT SOURCE POLLUTION</h3> <p><i>in Louisiana Waters</i></p> <h4>Fertilizing Lawns to Protect the Environment</h4> <p>A healthy green lawn conserves water and soil and represents the in Louisiana can reduce summer temperatures around the house by 15 to 20 degrees compared to bare soil. Thus, the advantage. Fertilizing practices and maintaining quality of a lawn are well worth the expense to keep it thick and healthy.</p> <p>Many folks seek good fertility and need our help in maintaining adequate and balanced level of nutrients. Over application of fertilizers, however, will result in developing lush, soft turf plants that require more mowing, are more prone to diseases and insects and are more susceptible to environmental stresses.</p> <p>Of the three major fertilizer nutrients, nitrogen (N) and phosphorus (P) can find their way into ponds and streams to cause trouble. They will readily leach the quality of surface water with the water where there's a sandy soil, steep slopes and heavy rain or irrigation. Phosphorus is generally carried on soil clays that are washed away in the surface water. It also can persist through a sandy soil.</p> <p> judicious use of fertilizer will promote healthy turf growth without jeopardizing the environment. One must know what to use, how much to apply when to apply it and how to properly apply it.</p>
<h3>REDUCE NONPOINT SOURCE POLLUTION</h3> <p><i>in Louisiana Waters</i></p> <h4>Vehicle and Boat Washing</h4> <p>It is best to take vehicle and boats to a properly equipped car wash where the water is collected and reused if required. These facilities have pumps where the water drop out of the water, and the discharge goes to the sewer where the water is treated before being discharged to any system. Sidewalk, oil, grease and road grime all contain chemicals that can harm streams when it finds its way into them. Car washes used in washing vehicles and boats are also harmful to streams.</p>	<h3>REDUCE NONPOINT SOURCE POLLUTION</h3> <p><i>in Louisiana Waters</i></p> <h4>What Fertilizer Should I Buy?</h4> <p>You will need a product that offers what's lacking in your soil and is right for your type of grass. Some soils may be too good for good growth and nutrient availability they will need less. A soil test every few years will determine the nutrient status of your soil and any long-term needs. Contact your AGCenter's local agricultural county agent and ask about a routine soil test to see what you need.</p> <p>Without a soil test, you must assume you have a moderate level of nutrients, and this may not be correct.</p>



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# ENVIROSCAPE MODEL



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DEQ's Be the Solution! campaign is emphasized in our outreach work. The idea behind this campaign is that each citizen can be part of the solution to pollution of Louisiana's waters by performing simple tasks such as recycling oil, bagging pet waste, using less fertilizer and pesticides, mulching or bagging grass clippings, and not littering.



# STORM DRAIN MARKER PROGRAM



- LDEQ can supply citizens with storm drain markers for their community.

# BAYOU CLEAN-UPS



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# **WATERSHED COORDINATORS**

**Facilitate and conduct activities in watersheds for the purpose of reducing NPS sources.**

- Participate and conduct workshops.
- Coordinate education outreach activities with the public.
- Participate in trash cleanups.
- Meet with stakeholders in the community to discuss ways of reducing NPS.
- Watershed monitoring.





# **LDEQ WATERSHED COORDINATORS**

- TRAILBLAZER RC&D
- CAPITAL RC&D





# Capital RC&D



- Lake Pontchartrain, Terrebonne, Pearl and Mississippi Basins  
Pontchatoula Creek & Yellow Water River, Selsers Creek, and Comite River, and Tunica watersheds
- Education and outreach
  - Home Sewage
  - Recycling events
  - BMPs
  - Watershed Cleanup



- Red River and Ouachita River Basins.
- Education and outreach
  - Forestry Workshops
  - Area school workshops





***Now for a little more about the  
LDEQ NPS 319 Program...***



# Section 319 of the Clean Water Act



- Amendments in 1987 established the Section 319 Nonpoint Source Management Program.
- “Under Section 319, states, territories and tribes receive grant money that supports a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects and monitoring to assess the success of specific nonpoint source implementation projects.”
- <https://www.epa.gov/polluted-runoff-nonpoint-source-pollution/319-grant-program-states-and-territories>



# Louisiana NPS Program



- Federally supported by Clean Water Act section 319 funding
- Funds are divided equally between LDEQ and LDAF
- LDEQ provides planning, assessment, monitoring, sampling, inspections and education and outreach
- LDAF provides conservation planning, BMP implementation and education and outreach

**The overall goal of the 319 NPS program is to restore and protect the State's waters**



# LDEQ NPS UNIT CONTACT INFORMATION



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[HTTP://DEQ.LOUISIANA.GOV/PAGE/NONPOINT-SOURCE](http://DEQ.LOUISIANA.GOV/PAGE/NONPOINT-SOURCE)

